

WHAT IS CLAIMED IS:

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- 5 1. A print control apparatus for receiving a print job including print data from an external apparatus and forming an image in an image forming section based on image data comprising:
- storing means for storing print data;
- generation means for generating image data by analyzing the print data; and
- 10 image formation control means for causing the image forming section to form an image based on the image data generated by the generation means,
- wherein the storing means stores the print data of the print job until formation of an image based on the image data generated from the print data of the print job by the image forming section is completed.
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2. The print control apparatus of Claim 1, further comprising interrupt control means for controlling such that in response to an interrupt instruction of a print job from the external apparatus
- 20 it causes the generation means to suspend analysis of the print data of any print job other than the print job designated to interrupt and analyze the print data of the instructed print job.
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3. The print control apparatus of Claim 1, wherein the interrupt control means, in response to an

interrupt instruction for a print job from the external apparatus, causes the image formation control means to suspend image formation in the image forming section based on the image data of any print job other than the print job instructed for interrupt.

4. The print control apparatus of Claim 1, wherein the interrupt control means, in response to an interrupt instruction for a print job from the external apparatus, causes the image forming section to suspend image formation based on the print data of any print job other than the print job instructed for interrupt.

5. The print control apparatus of Claim 1, wherein the interrupt control means, in response to an interrupt instruction for a print job from the external device, deletes all print data generated by the generation means.

6. The print control apparatus of Claim 1, wherein the interrupt control means, in response to an interrupt instruction for a print job from the external device, invalidates all print data generated by the generation means.

7. The print control apparatus of Claim 2, wherein the interrupt control means analyzes all print

data stored in the storing means, which is the print data of print jobs for which analysis is suspended in response to an interrupt instruction, after analysis of all of the print data of the print job instructed for interrupt is completed by the generation means.

8. The print control apparatus of Claim 3, wherein the interrupt control means analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image formation is suspended in response to an interrupt instruction, after the generation means has completed the analysis of all of the print data for the print job instructed to interrupt.

9. The print control apparatus of Claim 5, wherein the interrupt control means analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image data is deleted, after the generation means has completed the analysis of all of the print data for the print job instructed to interrupt.

10. The print control apparatus of Claim 6, wherein the interrupt control means analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image data is

~~invalidated, after the generation means has completed
the analysis of all of the print data for the print job
instructed to interrupt.~~

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11. The print control apparatus of Claim 2,
wherein an interrupt instruction for a print job is
included in the print job.

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12. The print control apparatus of Claim 1, further comprising priority control means for controlling such that the print data of a print job instructed for priority print is analyzed after the analysis of all the print data of another print job is completed by the generation means in response to a priority instruction for the print job from the external apparatus.

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13. The print control apparatus of Claim 12, wherein the priority instruction for a print job is included in the print job.

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14. The print control apparatus of Claim 1, further comprising suspend control function for controlling such that the print data stored by the storing means, which is the print data of a print job instructed for suspension, is not analyzed by the generation means in response to a suspend instruction

for the print job from the external apparatus.

15. The print control apparatus of Claim 14,
wherein the suspend control means causes the generation
5 means to analyze the print data stored in the storing
means, which is the print data of the print job
instructed for resume, in response to a resume
instruction of the print job from the external
apparatus.

10 16. The print control apparatus of Claim 15,
wherein the suspend control means controls such that
the generation means does not analyze the print data
stored in the storing means, which is print data of the
15 print job instructed for suspension, from when the
suspend instruction is received until a resume
instruction for the print job is received from the
external apparatus.

20 17. The print control apparatus of Claim 1,
wherein the generation means analyzes the print data at
the head of a list of information giving the order of
print jobs for which analysis of print data has not yet
been performed.

25 18. The print control apparatus of Claim 1,
further comprising attribution means for attributing to

received print jobs discrimination
discriminating the print jobs.

19. The print control apparatus
wherein the storing means stores the
at the print data of print jobs of
the discriminating information.

20. The print control apparatus
wherein the image forming section is
electrophotographic type.

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26. The print control apparatus of Claim 25,
wherein the power supply control means does not perform
power-off if there is no power-off instruction during
the designated amount of time and does perform power-
5 off if there is a power-off instruction during the
designated amount of time.

27. A print control apparatus for receiving a
print job including print data from an external
10 apparatus and forming an image in an image forming
section based on image data comprising:

generation means for generating image data by
analyzing the print data; and

image formation control means for causing the
15 image forming section to form an image based on the
image data generated by the generation means,

wherein said apparatus can be operated in a first
mode for causing the generation means to suspend the
analysis of the print data of any print jobs other than
20 the instructed job and analyze the print data of the
instructed job in response to an instruction for a
print job from the external apparatus and in a second
mode for causing the generation means to analyze the
print data of the instructed print job after completing
25 analysis of all the print data of a print job.

28. The print control apparatus of Claim 27,

wherein in the first mode it causes the image formation control means to suspend image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external apparatus.

29. The print control apparatus of Claim 27, wherein in the first mode it causes the suspension of image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external apparatus.

30. The print control apparatus of Claim 27, wherein in the first mode it deletes all image data generated by the generation means in response to an instruction for a print job from the external apparatus.

31. The print control apparatus of Claim 27, wherein in the first mode it invalidates all image data generated by the generation means in response to an instruction for a print job from the external apparatus.

32. The print control apparatus of Claim 27,
wherein in the first mode it analyzes all print data
stored in the storing means, which is the print data of
print jobs for which analysis is suspended in response
5 to an instruction, after analysis of all of the print
data of the instructed print job is completed by the
generation means.

33. The print control apparatus of Claim 28,
10 wherein in the first mode it analyzes all print data
stored in the storing means, which is the print data of
print jobs for which image generation is suspended in
response to an instruction, after analysis of all of
the print data of the instructed print job is completed
15 by the generation means.

34. The print control apparatus of Claim 30,
wherein in the first mode it analyzes all print data
stored in the storing means, which is the print data of
20 print jobs for which image data is deleted, after
analysis of all of the print data of the instructed
print job is completed by the generation means.

35. The print control apparatus of Claim 31,
25 wherein in the first mode it analyzes all print data
stored in the storing means, which is the print data of
print jobs for which image data is invalidated, after

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is of all of the print data of the job is completed by the generation

6. A print control apparatus for a job including print data from an external source and forming an image in an image formation section based on image data comprising:

- generation means for generating image data from the print data;
- image formation control means for controlling the image formation section to form an image based on the image data generated by the generation means;
- interrupt control means for controlling the generation means to suspend analysis of the print data of any print jobs other than the print job for which the image is produced for interrupt and analyzes the print data of the print job; and
- notification means for notifying the user of the status that there has been an interrupt of the print job if the analysis of the print data of the print job is interrupted by the interrupt control means.

37. The print control apparatus of claim 1, further comprising priority control means for controlling such that the print data of the print job for which the image is produced for priority print is analyzed first in the analysis of all the print data of another print job.

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ted by the generation means in response to the interrupt instruction for the print job from the print control apparatus.

38. The print control apparatus of the present invention, in the interrupt control means, in response to the interrupt instruction for a print job from the print control apparatus, causes the suspension of image forming section based on the interrupt instruction for a print job other than the print job in the interrupt.

39. The print control apparatus of the present invention, in the notification means notifies the print control apparatus that sent the print job for which the data is interrupted by the interrupt.

40. The print control apparatus of the present invention, in the notification means notifies the print control apparatus that sent the print job for which the interrupt control means caused image forming section based on image data interrupted.

41. The print control apparatus of the present invention, in the notification means notifies the print control apparatus that sent the print job for which the interrupt control means caused image forming section based on image data interrupted.

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41. The print control apparatus of Claim 38,
in the notification means notifies the external

atus that sent the print job for
tion based on image data is inter
rupt control means.

42. The print control apparatus
in the notification means notifie
atus that sent the print job for
ot analyzed by the generation mean

43. The print control apparatus
in the external apparatus is a ho
ected via a network.

44. The print control apparatus
ner comprising address storing me
ork address of the external appar
ived print job in connection with

45. A print control apparatus f
t job including print data from a
ratus and forming an image in an
ion based on image data compris
generation means for generating
yzing the print data;
image formation control means f
e forming section to form an ima
e data generated by the generatio

5 42. The print control apparatus of Claim 36,
wherein the notification means notifies the external
apparatus that sent the print job for which print data
is not analyzed by the generation means.

10 43. The print control apparatus of Claim 36,
wherein the external apparatus is a host computer
connected via a network.

44. The print control apparatus of Claim 43,
15 further comprising address storing means for string the
network address of the external apparatus that sent the
received print job in connection with the print job.

45. A print control apparatus for receiving a
20 print job including print data from an external
apparatus and forming an image in an image forming
section based on image data comprising:

generation means for generating image data by analyzing the print data;

25 image formation control means for causing the
image forming section to form an image based on the
image data generated by the generation means;

priority control means for controlling such that the print data of a print job instructed for priority print is analyzed after the analysis of all print data for the previous job is completed by the generation means; and

notification means for notifying the external apparatus that there has been an interruption if the print data of the print job instructed for priority is analyzed by the priority control means.

46. The print control apparatus of Claim 45, wherein the notification means notifies the external apparatus that sent the print job for which the print data is not analyzed by the generation means.

47. The print control apparatus of Claim 45, wherein the external apparatus is a host computer connected via a network.

48. The print control apparatus of Claim 47, further comprising address storing means for string the network address of the external apparatus that sent the received print job in connection with the print job.

49. A print control apparatus equipped with an interrupt function comprising:

memory means for storing print jobs supplied from

an external apparatus;

means for inputting interrupt commands
externally;

5 saving means for saving print jobs in response to
the interrupt command; and

output means for informing the external apparatus
of the interrupt in response to the saving process.

50. The print control apparatus of Claim 49,
10 further comprising processing means for analyzing the
print job and outputting to the external apparatus
wherein the saving process is performed by the
processing means for print jobs that are currently
outputting or waiting for output and print jobs
15 currently being analyzed.

51. The print control apparatus of Claim 49,
wherein the interrupt print function prints a print job
sent after input of the interrupt command by priority.

20 52. The print control apparatus of Claim 49,
wherein the interrupt print function prints a
designated print job among multiple print jobs already
supplied by priority.

25 53. The print control apparatus of Claim 50,
wherein the memory means stores multiple print jobs and

returns the status of the print jobs currently
outputting or waiting for output and the print jobs
currently being analyzed back to their status before
input of the interrupt command after executing the
interrupt command.

54. The print control apparatus of Claim 49,
wherein the external apparatus supplying the print job
is a host computer connected via a network.

55. The print control apparatus of Claim 54,
further comprising interface means for informing the
host computer that transferred the interrupted print
job that there is an interrupt print.

56. The print control apparatus of Claim 49,
further comprising multiple sheet ejection means
wherein an interrupt instructed print sheet is ejected
by a different ejection means than other print sheet.

57. A print control method for receiving print
jobs including print data from an external apparatus
and causing image formation in an image forming section
based on image data comprising:

a storing step for storing print data with a
storing means;

a generation step for generating image data by

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an image formation control step for causing image formation in the image forming section based on the image data generated by the generation step,

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60. The print control method of Claim 57, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the image forming section to suspend image formation based on the print data of any print job other than the print job instructed for interrupt.

61. The print control method of Claim 57, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external device, deletes all print data generated by the generation step.

62. The print control method of Claim 57, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external device, invalidates all print data generated by the generation step.

63. The print control method of Claim 58, wherein the interrupt control step analyzes all print data stored in the storing means, which is the print data of print jobs for which analysis is suspended in response to an interrupt instruction, after analysis of all of the print data of the print job instructed for interrupt is completed by the generation step.

64. The print control method of Claim 59, wherein the interrupt control step analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image formation is suspended in response to an interrupt instruction, after the generation step has completed the analysis of all of the print data for the print job instructed to interrupt.

65. The print control method of Claim 61, wherein the interrupt control step analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image data is deleted, after the generation step has completed the analysis of all of the print data for the print job instructed to interrupt.

66. The print control method of Claim 62, wherein the interrupt control step analyzes all of the print data stored by the storing means, which is the print data of print jobs for which image data is invalidated, after the generation step has completed the analysis of all of the print data for the print job instructed to interrupt.

67. The print control method of Claim 58, wherein an interrupt instruction for a print job is included in

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the print job.

68. The print control method of Claim 57, further comprising a priority control step for controlling such that the print data of a print job instructed for priority print is analyzed after the analysis of all the print data of another print job is completed by the generation step in response to a priority instruction for the print job from the external apparatus.

69. The print control method of Claim 68, wherein the priority instruction for a print job is included in the print job.

70. The print control method of Claim 57, further comprising a suspend control step for controlling such that the print data stored by the storing means, which is the print data of a print job instructed for suspension, is not analyzed by the generation step in response to a suspend instruction for the print job from the external apparatus.

71. The print control method of Claim 70, wherein the suspend control step causes the generation step to analyze the print data stored in the storing means, which is the print data of the print job instructed for resume, in response to a resume instruction of the

print job from the external apparatus.

5 72. The print control method of Claim 71, wherein
the suspend control step controls such that the
generation step does not analyze the print data stored
in the storing means, which is print data of the print
job instructed for suspension, from when the suspend
instruction is received until a resume instruction for
the print job is received from the external apparatus.

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73. The print control method of Claim 57, wherein
the generation step analyzes the print data at the head
of a list of information giving the order of print jobs
for which analysis of print data has not yet been
15 performed.

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74. The print control method of Claim 57, further
comprising an attribution step for attributing to
received print jobs discrimination information for
20 discriminating the print jobs.

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75. The print control method of Claim 73, wherein
the storing step stores the print data such that the
print data of print jobs can be accessed based on the
25 discriminating information.

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76. The print control method of Claim 57, wherein

the image forming section is an electrophotographic type.

77. The print control method of Claim 58, further comprising a determination step for determining whether or not an interrupt instruction is permitted wherein the interrupt control step does not control such that the print data of a print job is analyzed and the analysis of the print data of any print job other than the print job instructed to interrupt is suspended by the generation step if it is determined that the instruction is not permitted by the determination means.

15 78. The print control method of Claim 59, further
comprising a determination step for determining whether
or not an interrupt instruction is permitted wherein
the interrupt control step does not cause the image
formation control step to suspend image formation in
20 the image forming section based on the image data of
any print job other than the print job instructed to
interrupt.

79. The print control method of Claim 61, further
25 comprising a determination step for determining whether
or not an interrupt instruction is permitted wherein
the interrupt control step does not cause suspension of

image formation in the image forming section based on the image data of any print job other than the print job instructed to interrupt.

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5 80. The print control method of Claim 77, further comprising a setting step for setting whether or not interrupt instruction can be used wherein the determination step determines that interrupt instructions are permitted if it is set for use by the
10 setting step.

81. The print control method of Claim 70, further comprising a determination step for determining whether or not suspended print jobs exist at power-off and a
15 power supply control step for suspending power-off for a designated amount of time if it is determined that a print job exists by the determination step.

82. The print control method of Claim 81, wherein
20 the power supply control step does not perform power-off if there is no power-off instruction during the designated amount of time and does perform power-off if there is a power-off instruction during the designated amount of time.

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83. A print control method for receiving a print job including print data from an external apparatus and

forming an image in an image forming section based on image data comprising:

a generation step for generating image data by analyzing the print data; and

5 an image formation control step for causing the image forming section to form an image based on the image data generated by the generation step,

wherein said method can be executed in a first mode for causing the generation step to suspend the analysis of the print data of any print jobs other than the instructed job and analyze the print data of the instructed job in response to an instruction for a print job from the external apparatus and in a second mode for causing the generation step to analyze the print data of the instructed print job after completing analysis of all the print data of a print job.

84. The print control method of Claim 83, wherein in the first mode it causes the image formation control step to suspend image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external apparatus.

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85. The print control method of Claim 83, wherein in the first mode it causes the suspension of image

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the storing means, which is the print data of print jobs for which image generation is suspended in response to an instruction, after analysis of all of the print data of the instructed print job is completed
5 by the generation step.

90. The print control method of Claim 86, wherein in the first mode it analyzes all print data stored in the storing means, which is the print data of print
10 jobs for which image data is deleted, after analysis of all of the print data of the instructed print job is completed by the generation step.

91. The print control method of Claim 87, wherein
15 in the first mode it analyzes all print data stored in the storing means, which is the print data of print jobs for which image data is invalidated, after analysis of all of the print data of the instructed print job is completed by the generation step.

20 92. A print control method for receiving a print job including print data from an external apparatus and forming an image in an image forming section based on image data comprising:

25 a generation step for generating image data by analyzing the print data;

an image formation control step for causing the

image forming section to form an image based on the
image data generated by the generation step;

an interrupt control step for controlling such
that the generation step suspends analysis of the print
5 data of any print jobs other than the print job
instructed for interrupt and analyzes the print data of
that print job; and

a notification step for notifying the external
apparatus that there has been an interruption of a
10 print job if the analysis of the print data of a print
job is interrupted by the interrupt control step.

93. The print control method of Claim 92, wherein
the interrupt control step, in response to an interrupt
15 instruction for a print job from the external
apparatus, causes the suspension of image formation by
the image formation control step in the image forming
section based on the image data of any print job other
than the print job instructed for interrupt.

94. The print control method of Claim 92, wherein
the interrupt control step, in response to an interrupt
instruction for a print job from the external
apparatus, causes the suspension of image formation in
25 the image forming section based on the image data of
any print job other than the print job instructed for
interrupt.

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102. The print control method of Claim 101,
wherein the notification step notifies the external

apparatus that sent the print job for which the print data is not analyzed by the generation step.

103. The print control method of Claim 101,
5 wherein the external apparatus is a host computer connected via a network.

104. The print control method of Claim 103,
10 further comprising an address storing step for storing the network address of the external apparatus that sent the received print job in connection with the print job.

105. A print control method equipped with an
15 interrupt print function and comprising:

a memory step for storing print jobs supplied from an external apparatus;

a step for inputting interrupt commands externally;

20 a saving step for saving print jobs in response to the interrupt command; and

an output step for informing the external apparatus of the interrupt in response to the saving process.

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106. The print control method of Claim 105, further comprising a processing step for analyzing the

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an image formation control step for causing image formation in an image forming section based on image data generated by the generation step;

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the image data generated from the print data of the print job.

114. The computer-readable memory medium of Claim 5 113, wherein the program further comprises an interrupt control step for controlling such that, in response to an interrupt instruction of a print job from the external apparatus, it causes the generation step to suspend analysis of the print data of any print job 10 other than the print job designated to interrupt and analyze the print data of the instructed print job.

115. The computer-readable memory medium of Claim 15 113, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the image formation control step to suspend image formation in the image forming section based on the image data of any print job other than the print job instructed for interrupt.

116. The computer-readable memory medium of Claim 20 113, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the image forming section to suspend image formation based on the print data of any 25 print job other than the print job instructed for interrupt.

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124. The computer-readable memory medium of Claim
25 113, wherein the program further comprises a priority
control step for controlling such that the print
control program causes the print data of a print job

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128. The computer-readable memory medium of Claim 127, wherein the suspend control step controls such that the generation step does not analyze the print data stored in the storing means, which is print data of the print job instructed for suspension, from when the suspend instruction is received until a resume instruction for the print job is received from the external apparatus.

129. The computer-readable memory medium of Claim 113, wherein the generation step analyzes the print data at the head of a list of information giving the order of print jobs for which analysis of print data has not yet been performed.

130. The computer-readable memory medium of Claim 113, wherein the program further comprises an attribution step wherein the print control program attributes to received print jobs discrimination information for discriminating the print jobs.

131. The computer-readable memory medium of Claim 129, wherein the storing step stores the print data with a storing means such that the print data of print jobs can be accessed based on the discriminating information.

132. The computer-readable memory medium of Claim 113, wherein the image forming section is an electrophotographic type.

Sub A1 } 5 133. The computer-readable memory medium of Claim 114, wherein the program further comprises a determination step for determining whether or not an interrupt instruction is permitted wherein the interrupt control step does not control such that the
10 print data of a print job is analyzed and the analysis of the print data of any print job other than the print job instructed to interrupt is suspended by the generation step if it is determined that the instruction is not permitted by the determination step.

15 134. The computer-readable memory medium of Claim 115, wherein the program further comprises a determination step for determining whether or not an interrupt instruction is permitted wherein the
20 interrupt control step does not suspend image formation in the image forming section by the image formation control step based on the image data of any print job other than the print job instructed to interrupt.

25 135. The computer-readable memory medium of Claim 117, wherein the program further comprises a determination step for determining whether or not an

interrupt instruction is permitted wherein the
interrupt control step does not suspend image formation
in the image forming section based on the image data of
any print job other than the print job instructed to
5 interrupt.

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136. The computer-readable memory medium of Claim
133, wherein the program further comprises a setting
step for setting whether or not interrupt instructions
10 can be used wherein the determination step determines
that interrupt instruction are permitted if it is set
for use by the setting step.

137. The computer-readable memory medium of Claim
15 126, wherein the program further comprises a
determination step for determining whether or not
suspended print jobs exist at power-off and a power
supply control step for suspending power-off for a
designated amount of time if it is determined that a
20 print job exists by the determination step.

138. The computer-readable memory medium of Claim
137, wherein the power supply control step does not
perform power-off if there is no power-off instruction
25 during the designated amount of time and does perform
power-off if there is a power-off instruction during
the designated amount of time.

139. A computer-readable memory medium which stores a print control program for receiving a print job including print data from an external device and causing image formation in an image forming section based on image data, the program comprising:

a generation step for generating image data by analyzing the print data; and

an image formation control step for causing the image forming section to form an image based on the image data generated by the generation step,

wherein the program can be executed in:

a first mode for causing the generation step to suspend the analysis of the print data of any print jobs other than the instructed job and analyze the print data of the instructed job in response to an instruction for a print job from the external apparatus; and

a second mode for causing the generation step to analyze the print data of the instructed print job after completing analysis of all the print data of a print job.

140. The computer-readable memory medium of Claim 139, wherein in the first mode it causes the image formation control step to suspend image formation in the image forming section based on the image data relating to any print job other than the print job

instructed to interrupt in response to an instruction for a print job from the external apparatus.

141. The computer-readable memory medium of Claim 5 139, wherein in the first mode it causes the suspension of image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external 10 apparatus.

142. The computer-readable memory medium of Claim 139, wherein in the first mode it deletes all image data generated by the generation step in response to an 15 instruction for a print job from the external apparatus.

143. The computer-readable memory medium of Claim 139, wherein in the first mode it invalidates all image 20 data generated by the generation step in response to an instruction for a print job from the external apparatus.

Handwritten mark 144. The computer-readable memory medium of Claim 25 139, wherein in the first mode it analyzes all print data stored in the storing means, which is the print data of print jobs for which analysis is suspended in

145. The computer-readable memory wherein in the first mode it analyzes all of the print data of the instructed print job stored in the storing means, which is a list of print jobs for which image generation is requested in response to an instruction, wherein all of the print data of the instructed print job is completed by the generation step.

146. The computer-readable memory wherein in the first mode it analyzes all of the print data of the instructed print job stored in the storing means, which is a list of print jobs for which image data is requested, wherein after analysis of all of the print data of the instructed print job is completed by the generation step.

147. The computer-readable memory wherein in the first mode it analyzes all of the print data of the instructed print job stored in the storing means, which is a list of print jobs for which image data is requested, wherein after analysis of all of the print data of the instructed print job is completed by the generation step.

5 145. The computer-readable memory medium of Claim
140, wherein in the first mode it analyzes all print
data stored in the storing means, which is the print
data of print jobs for which image generation is
suspended in response to an instruction, after analysis
10 of all of the print data of the instructed print job is
completed by the generation step.

146. The computer-readable memory medium of Claim 142, wherein in the first mode it analyzes all print data stored in the storing means, which is the print data of print jobs for which image data is deleted, after analysis of all of the print data of the instructed print job is completed by the generation step.

147. The computer-readable memory medium of Claim 143, wherein in the first mode it analyzes all print data stored in the storing means, which is the print data of print jobs for which image data is invalidated, after analysis of all of the print data of the instructed print job is completed by the generation step.

148. A computer-readable memory medium which stores a print control program for receiving a print job including print data from an external device and causing image formation in an image forming section based on image data, the program comprising:

a generation step for generating image data by analyzing the print data;

an image formation control step for causing the image forming section to form an image based on the image data generated by the generation step;

an interrupt control step for controlling such that the generation step suspends analysis of the print data of any print jobs other than the print job instructed for interrupt and analyzes the print data of that print job; and

a notification step for notifying the external apparatus that there has been an interruption of a print job if the analysis of the print data of a print job is interrupted by the interrupt control step.

149. The computer-readable memory medium of Claim 148, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the image formation control step to suspend image formation in the image forming section based on the image data of any print job other than the print job instructed for interrupt.

150. The computer-readable memory medium of Claim 148, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the suspension of image formation in the image forming section based on the image data of any print job other than the print job instructed for interrupt.

151. The computer-readable memory medium of Claim 148, wherein the notification step notifies the external apparatus that sent the print job for which analysis of print data is interrupted by the interrupt control step.

152. The computer-readable memory medium of Claim 149, wherein the notification step notifies the external apparatus that sent the print job for which the interrupt control step caused image formation in the image formation section based on image data to be interrupted.

153. The computer-readable memory medium of Claim 150, wherein the notification step notifies the external apparatus that sent the print job for which image formation based on image data is interrupted by the interrupt control step.

154. The computer-readable memory medium of Claim 148, wherein the notification step notifies the external apparatus that sent the print job for which print data is not analyzed by the generation step.

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155. The computer-readable memory medium of Claim 148, wherein the external apparatus is a host computer connected via a network.

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156. The computer-readable memory medium of Claim 155, wherein the program further comprises an address storing step for string the network address of the external apparatus that sent the received print job in connection with the print job.

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157. A computer-readable memory medium which stores a print control program for receiving a print job including print data from an external device and causing image formation in an image forming section based on image data, the program comprising:

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a generation step for generating image data by analyzing the print data;

an image formation control step for causing the image forming section to form an image based on the image data generated by the generation step;

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a priority control step for controlling such that the print data of a print job instructed for priority


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a step for inputting interrupt commands
externally;

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an output step for informing the external apparatus of the interrupt in response to the saving process.

162. The computer-readable memory medium of Claim 161, wherein the program further comprises a processing step wherein the print control program analyzes the print job and outputs to the external apparatus and the saving process is performed by the processing step for print jobs that are currently outputting or waiting for output and print jobs currently being analyzed.

163. The computer-readable memory medium of Claim 161, wherein the interrupt print function prints a print job sent after input of the interrupt command by priority.

164. The computer-readable memory medium of Claim 161, wherein the interrupt print function prints a designated print job among multiple print jobs already supplied by priority.

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jobs including print data from an external apparatus and causing image formation in an image forming section based on image data, comprising:

5 a storing step for storing print data with a storing means;

a generation step for generating image data by analyzing print data; and

10 an image formation control step for causing image formation in the image forming section based on the image data generated by the generation step,

15 wherein the storing step stores print data of a print job by the storing means until the formation of an image based on all of the image data generated from the print data of the print job is completed by the image forming section.

20 170. The print control program of Claim 169, further comprising an interrupt control step for controlling such that in response to an interrupt instruction of a print job from the external apparatus it causes the generation step to suspend analysis of the print data of any print job other than the print job designated to interrupt and analyze the print data of the instructed print job.

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171. The print control program of Claim 169, wherein the interrupt control step, in response to an

interrupt instruction for a print job from the external apparatus, causes the image formation control step to suspend image formation in the image forming section based on the image data of any print job other than the print job instructed for interrupt.

172. The print control program of Claim 169, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external apparatus, causes the image forming section to suspend image formation based on the print data of any print job other than the print job instructed for interrupt.

173. The print control program of Claim 169, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external device, deletes all print data generated by the generation step.

174. The print control program of Claim 169, wherein the interrupt control step, in response to an interrupt instruction for a print job from the external device, invalidates all print data generated by the generation step.

175. The print control program of Claim 170, wherein the interrupt control step analyzes all print

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invalidated, after the generation step has completed the analysis of all of the print data for the print job instructed to interrupt.

5 179. The print control program of Claim 170, wherein an interrupt instruction for a print job is included in the print job.

10 180. The print control program of Claim 169, further comprising a priority control step for controlling such that the print data of a print job instructed for priority print is analyzed after the analysis of all the print data of another print job is completed by the generation step in response to a
15 priority instruction for the print job from the external apparatus.

20 181. The print control program of Claim 180, wherein the priority instruction for a print job is included in the print job.

25 182. The print control program of Claim 169, further comprising a suspend control step for controlling such that the print data stored by the storing means, which is the print data of a print job instructed for suspension, is not analyzed by the generation step in response to a suspend instruction

for the print job from the external app

183. The print control program of
wherein the suspend control step causes
step to analyze the print data stored in
means, which is the print data of the print
instructed for resume, in response to a
instruction of the print job from the external
apparatus.

184. The print control program of
wherein the suspend control step controls
generation step does not analyze the print
in the storing means, which is print data
job instructed for suspension, from which
instruction is received until a resume
the print job is received from the external

185. The print control program of
wherein the generation step analyzes the
the head of a list of information giving
print jobs for which analysis of print
been performed.

186. The print control program of
further comprising an attribution step
to received print jobs discrimination

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discriminating the print jobs.

187. The print control program of Claim 185,
wherein the storing step stores the print data such
5 that the print data of print jobs can be accessed based
on the discriminating information.

188. The print control program of Claim 169,
wherein the image forming section is an
10 electrophotographic type.

189. The print control program of Claim 170,
further comprising a determination step for determining
whether or not an interrupt instruction is permitted
15 wherein the interrupt control step does not control
such that the print data of a print job is analyzed and
the analysis of the print data of any print job other
than the print job instructed to interrupt is suspended
by the generation step if it is determined that the
20 instruction is not permitted by the determination
means.

190. The print control program of Claim 173,
further comprising a determination step for determining
25 whether or not an interrupt instruction is permitted
wherein the interrupt control step does not cause the
image formation control step to suspend image formation

in the image forming section based on the image data of any print job other than the print job instructed to interrupt.

5 191. The print control program of Claim 173,
further comprising a determination step for determining
whether or not an interrupt instruction is permitted
wherein the interrupt control step does not cause
suspension of image formation in the image forming
10 section based on the image data of any print job other
than the print job instructed to interrupt.

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15 192. The print control program of Claim 189,
further comprising a setting step for setting whether
or not interrupt instruction can be used wherein the
determination step determines that interrupt
instructions are permitted if it is set for use by the
setting step.

20 193. The print control program of Claim 182,
further comprising a determination step for determining
whether or not suspended print jobs exist at power-off
and a power supply control step for suspending power-
off for a designated amount of time if it is determined
25 that a print job exists by the determination step.

194. The print control program of Claim 193,

wherein the power supply control step does not perform power-off if there is no power-off instruction during the designated amount of time and does perform power-off if there is a power-off instruction during the
5 designated amount of time.

195. A print control program for receiving a print job including print data from an external apparatus and forming an image in an image forming
10 section based on image data, comprising:
a generation step for generating image data by analyzing the print data; and
an image formation control step for causing the image forming section to form an image based on the
15 image data generated by the generation step,
wherein said program can be executed in a first mode for causing the generation step to suspend the analysis of the print data of any print jobs other than the instructed job and analyze the print data of the
20 instructed job in response to an instruction for a print job from the external apparatus and in a second mode for causing the generation step to analyze the print data of the instructed print job after completing analysis of all the print data of a print job.

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196. The print control program of Claim 195, wherein in the first mode it causes the image formation

control step to suspend image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external apparatus.

197. The print control program of Claim 195, wherein in the first mode it causes the suspension of image formation in the image forming section based on the image data relating to any print job other than the print job instructed to interrupt in response to an instruction for a print job from the external apparatus.

198. The print control program of Claim 195, wherein in the first mode it deletes all image data generated by the generation step in response to an instruction for a print job from the external apparatus.

199. The print control program of Claim 195, wherein in the first mode it invalidates all image data generated by the generation step in response to an instruction for a print job from the external apparatus.

200. The print control program of Claim 195,

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print job is completed by the generation step.

204. A print control program for receiving a
print job including print data from an external
5 apparatus and forming an image in an image forming
section based on image data, comprising:

a generation step for generating image data by
analyzing the print data;

an image formation control step for causing the
10 image forming section to form an image based on the
image data generated by the generation step;

an interrupt control step for controlling such
that the generation step suspends analysis of the print
data of any print jobs other than the print job
15 instructed for interrupt and analyzes the print data of
that print job; and

a notification step for notifying the external
apparatus that there has been an interruption of a
print job if the analysis of the print data of a print
20 job is interrupted by the interrupt control step.

205. The print control program of Claim 204,
wherein the interrupt control step, in response to an
interrupt instruction for a print job from the external
25 apparatus, causes the suspension of image formation by
the image formation control step in the image forming
section based on the image data of any print job other

than the print job instructed for interrupt.

206. The print control program of Claim 204,
wherein the interrupt control step, in response to an
interrupt instruction for a print job from the external
apparatus, causes the suspension of image formation in
the image forming section based on the image data of
any print job other than the print job instructed for
interrupt.

207. The print control program of Claim 204,
wherein the notification step notifies the external
apparatus that sent the print job for which analysis of
print data is interrupted by the interrupt control
step.

208. The print control program of Claim 205,
wherein the notification step notifies the external
apparatus that sent the print job for which the
interrupt control step caused image formation in the
image formation section based on image data to be
interrupted.

209. The print control program of Claim 206,
wherein the notification step notifies the external
apparatus that sent the print job for which image
formation based on image data is interrupted by the

interrupt control step.

210. The print control program of Claim 204,
wherein the notification step notifies the external
5 apparatus that sent the print job for which print data
is not analyzed by the generation step.

211. The print control program of Claim 204,
wherein the external apparatus is a host computer
10 connected via a network.

212. The print control program of Claim 211,
further comprising an address storing step for storing
the network address of the external apparatus that sent
15 the received print job in connection with the print
job.

213. A print control program for receiving a
print job including print data from an external
20 apparatus and forming an image in an image forming
section based on image data, comprising:

a generation step for generating image data by
analyzing the print data;

an image formation control step for causing the
25 image forming section to form an image based on the
image data generated by the generation step;

a priority control step for controlling such that

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the print data of a print job instructed for priority print is analyzed after the analysis of all print data for the previous job is completed by the generation step; and

5 a notification step for notifying the external apparatus that there has been an interruption if the print data of the print job instructed for priority is analyzed by the priority control step.

10 214. The print control program of Claim 213, wherein the notification step notifies the external apparatus that sent the print job for which the print data is not analyzed by the generation step.

15 215. The print control program of Claim 213, wherein the external apparatus is a host computer connected via a network.

20 216. The print control program of Claim 214, further comprising an address storing step for storing the network address of the external apparatus that sent the received print job in connection with the print job.

25 217. A print control program with an interrupt print function, comprising:

 a memory step for storing print jobs supplied

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a step for inputting interrupt commands
externally;

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an output step for informing the external apparatus of the interrupt in response to the saving process.

currently being analyzed.

219. The print contro

219. The print control program of Claim 217,
wherein the interrupt print function prints a print job
sent after input of the interrupt command by priority.

220. The print control program of Claim 217, wherein the interrupt print function prints a designated print job among multiple print jobs already supplied by priority.

221. The print control program of Claim 218,

wherein the memory step stores multiple print jobs and
returns the status of the print jobs currently
outputting or waiting for output and the print jobs
currently being analyzed back to their status before
5 input of the interrupt command after executing the
interrupt command.

222. The print control program of Claim 217,
wherein the external apparatus supplying the print job
10 is a host computer connected via a network.

223. The print control program of Claim 222,
further comprising an interface step for informing the
host computer that transferred the interrupted print
15 job that there is an interrupt print.

224. The print control program of Claim 217,
further comprising an ejection step for ejecting
printed sheets with any of multiple sheet ejection
20 means wherein the ejection step ejects printed sheets
of interrupt instructed jobs with a different sheet
ejection means than that for other printed sheets.

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